### ISO 9001/UL/CUL/EU/RoHS

Throughout the world, there is a wide variety of regulatory codes, agency approvals, and other types of certification that may be required in order to install an automation system. These requirements vary and depend on your exact location and situation. For example, there may be national codes, state and local government codes, and even wide-ranging requirements such as the European Union (EU) Directives. The following are some of these codes and requirements, and explanations of how they may affect you as a PLC and industrial controls user.

#### **ISO 9001**

Some companies require their suppliers to use products that are built by companies that adhere to a documented set of quality-related procedures. ISO 9001 is one of the standards in the ISO 9000 family of standards for quality management systems. Koyo Electronics Industries Company, Ltd., the manufacturer of most of our PLC products, is an ISO 9001 certified company, as are many of our other Federation members. Some copies of the ISO certificates are available on our Web site.

### Underwriters Laboratories (UL/CUL)

Underwriters Laboratories is one of the world's premier safety testing and certification sources. Many applications require UL approval for insurance and/or other compliance purposes. There are several areas of interest, but the most applicable are: UL508, the standard for Industrial Control Equipment; and UL1604, the standard covering Hazardous Locations. For more information on the Underwriters Laboratories, check their Web site at www.ul.com. There are several tables in this section that show which of our products have a UL listing. (They also indicate the cUL approval, which is required in many applications in Canada.) Please check our Web site for the most current information.

#### **European Union (EU) Directives**

This area of certification and approval is absolutely vital to anyone who wants to do business in Europe. One of the key tasks that faced the EU member countries and the European Economic Area (EEA) was the requirement to bring several similar, yet distinct, standards together

into one common standard for all members. The primary purpose of a single standard was to make it easier to sell and transport goods between the various countries and to maintain a safe working and living environment. The Directives that resulted from this "harmonization" of standards are now legal requirements for doing business in Europe. Products that meet these Directives are required to have a CE mark to signify compliance. A few key questions are always asked when the subject of CE is discussed.

Which Directives apply to me? Several Directives apply to our products, and Directives may be amended or added, as required.

- Electromagnetic Compatibility
   Directive (EMC) Provides a means to ensure that products placed on the market do not generate electromagnetic disturbances that would affect other apparatus, including radio and/or telecommunications equipment.
- Machinery Safety Directive Covers the safety aspects of the equipment, installation, etc. There are several areas involved, including testing standards covering both electrical noise immunity and noise generation.
- Low Voltage Directive Is also safety related and covers electrical equipment that has voltage ranges of 50-1,000 VAC and/or 75-1,500 VDC.
- **Battery Directive** Covers the production, recycling, and disposal of batteries.

Who is responsible for ensuring compliance with these Directives? Ultimately, we are all responsible for our various pieces of the puzzle. Manufacturers must test their products and document any test results and/or installation procedures necessary to comply with the Directives. As a machine builder, you are responsible for installing the products in a manner that will ensure compliance is maintained. You are also responsible for testing any combinations of products that may (or may not) comply with the Directives when used together. The end user of the products must comply with any Directives that may cover maintenance, disposal, etc. of equipment or various components. Although we strive to provide the best assistance available, it is impossible for us to test all possible configurations of the products we carry with respect to any specific Directive. Because of this, it is ultimately your responsibility to ensure that your machinery (as a whole) complies with these Directives and to keep up with applicable Directives and/or practices

that are required for compliance.

Which DirectLOGIC products carry the CE label? As of March, 2002, selected DL05, DL06, DL205, DL305, DL405 and Terminator I/O PLC systems manufactured by Koyo Electronics Industries, Host Engineering or FACTS Engineering, when properly installed and used, conform to the Electromagnetic Compatibility (EMC), Low Voltage Directive, and Machinery Directive requirements of the standards on the next page.

### EC 61000-3-2 Power Factor Correction

The IEC 61000-3-2 standard is intended to reduce the amount of disturbance a device feeds back into its power source. AutomationDirect power supplies all carry the CE mark. Normally, 61000-3-2 is met or does not apply. Only our PS24-150D and PS24-300D could potentially be used in a manner not compliant with the 61000-3-2 standard.

#### RoHS

The Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC [1] was adopted in February 2003 by the EU. The RoHS directive, which took effect July 1, 2006, restricts the use of six hazardous materials in the manufacture of various types of electrical and electronic equipment. RoHS is linked with the Waste Electrical and Electronic Equipment Directive (WEEE) 2002/96/EC which sets collection, recycling and recovery targets for electrical goods and is part of a legislative initiative to solve the problem of large amounts of toxic e-waste.

Each EU member state will adopt its own enforcement and implementation policies using the directive as a guide. Therefore, there could be as many different versions of the directive as there are states in the EU.

RoHS is often referred to as the lead-free directive, however, it restricts the use of the following six substances:

- •Lead
- Mercury
- •Cadmium
- •Hexavalent chromium (chromium VI or Cr 6+)
- •Polybrominated biphenyls (PBB)
- •Polybrominated diphenyl ether (PBDE)

For a listing of all products and their compliance status see:

http://support.automationdirect.com/compliance.html#rohs

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#### EMC Directive Standards Relevant to **PLCs**

EN50081-1 - Generic emission standard for residential, commercial, and light industry

EN50081-2 – Generic emission standard for industrial environment

EN50082-1 - Generic immunity standard for residential, commercial, and light

EN50082-2 - Generic immunity standard for industrial environment

#### Low Voltage Directive Standards Applicable to PLCs

EN61010-1 - Safety requirements for electrical equipment for measurement, control, and laboratory use

 Product Specific Standard for PLCs EN61131-2 - Programmable controllers, equipment requirements and tests. This standard replaces the above generic standards for immunity and safety. However, the generic emissions standards must still be used in conjunction with the following standards:

EN 61000-3-2 - Harmonics

EN 61000-3-2 - Fluctuations. We are currently in the process of changing our testing procedures from the generic standards to the product specific standards.

We do have separate Declarations of Conformity that cover the specific products and part numbers approved. Not all of the products have been labeled for CE as of this writing, so you should check the tables on the following pages to be sure. Please also check our Web site for the most up-to-date information on CE approvals or to obtain copies of our Declarations of Conformity.

Are there any special requirements necessary when using DirectLOGIC equipment? Yes, the installation requirements to comply with the requirements of the Machinery Directive, EMC Directive and Low Voltage Directive are slightly more complex than the normal installation requirements found in the United States. First, check the Declaration for specific application conditions required.

Then, refer to the following manual:

• DA-EU-M - EU Installation Manual that covers special installation requirements to meet the EU Directive requirements. You should download the manual from our Web site to obtain the most current information. The manual is available for download at:

#### support.automationdirect.com/ compliance.html

Finally, check your user manual for EU information.

Are there any other sources of information? Although the EMC Directive gets the most attention, other basic Directives, such as the Machinery Directive and the Low Voltage Directive, also place restrictions on the control panel builder. Because of these additional requirements, it is recommended that the following publications be purchased and used as guide-

- BSI publication TH42073: February 1996 -Covers the safety and electrical aspects of the Machinery Directive
- EN60204-1:1992 General electrical requirements for machinery, including Low Voltage and EMC considerations
- IEC 1000-5-2: EMC earthing and cabling requirements
- IEC 1000-5-1: EMC general considerations

It may be possible for you to obtain this information locally. However, the official source of applicable Directives and related standards is:

The Office for Official Publications of the European Communities

www.europa.eu.int

Another source is:

#### Global Engineering Documents

15 Inverness Way East Englewood, CO 80112-5776 1(800) 854-7179 (within the U.S.) (303) 397-7956 (international) (303) 397-2740 (fax)

www.global.ihs.com

section is intended as a guideline and is various standards and requirements. Since the actual standards are issued possibly invalidate any part of the information provided in this section.

Following is a list of books that may be helpful to you:

Title: EMC For Systems and Installations

Authors: Tim Williams and Keith Armstrong **Publisher: Newnes** 

Title: CE From A to Z

Authors: Mette Winther Pedersen & Gert

Bukkjaer

Woburn, MA

Publisher: Levison & Johnson & Johnson a/s

Denmark

**EU Directive Handbook:** 

**Understanding the European Union Compliance Process and What it** 

Means to You

Authors: Allen R. Bailey & Melinda C. Bailey Publisher: St. Lucie Press Boca Raton, FL

Title: **Practical Guide to the Low Voltage Directive** 

Authors: Gregg Kervill

**Publisher: Newnes** Woburn, MA

C E Marking Handbook: A Practical **Approach to Global Safety** Certification

Authors: David Lohbeck **Publisher: Newnes** Woburn, MA

DL405 Field I/O Software C-more Other HMI AC Drives Motors Steppers/ Servos Motor Controls Proximity Photo Sensors Limit Switches Encoders Current Sensors Pushbuttons/ Lights Process Relays/ Comm. TB's & Power Circuit Protection Enclosures

**Appendix** 

Part Index

DL05/06

DL105

DL205

DL305

PLC

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### **NEC and NEMA**

## The National Electrical Code (NEC)

NEC provides regulations concerning the installation and use of various types of electrical equipment.

These classifications are being "harmonized" with the IEC and European Hazardous Location Ratings. A source of information about this "harmonization" is the Instrument Society of America (ISA).

Contact the ISA at:

67 Alexander Drive

RTP, NC 27709

Phone: (919)549-8411

www.isa.org

Another resource is: www.ul.com/hazloc

### National Electrical Manufacturers Association (NEMA)

NEMA publishes many different documents that discuss standards for industrial control equipment. Please note that these standards are undergoing "harmonization" with the IEC and European standards and may be replaced. Global Engineering Documents handles the sale of NEMA, IEC and CE documents. For more information, please contact Global Information at:

1 (800) 854-7179 (within the U.S.) (303) 397-7956 (international) (303) 397-2740 (fax)

15 Inverness Way East Englewood, CO 80112-5776

#### www.global.ihs.com

- ICS 1, General Standards for Industrial Control and Systems
- ICS 2, Controllers, Contactors, and Overload Relays, Rated no more than 2000 Volts AC or 750 Volts DC
- ICS 3, Factory Built Assemblies
- ICS 6, Enclosures for Industrial Control Systems

National E	National Electric Code (NEC) Article 500 Hazardous Location Classification					
Class	Division	Group				
Class I Locations in which flammable gases or vapors are (or may be) present in the air in quantities great enough to produce explosive or ignitable mixtures.	DIVISION 1: Locations in which hazardous concentrations of flammable gases or vapors exist continuously, intermittently, or periodically under normal conditions.  -or-Locations in which hazardous concentrations of flammable gases or vapors may exist frequently because of repair or maintenance operations or because of leakage.  -or-Locations in which breakdown or faulty operation of equipment or processes might release hazardous concentrations of flammable gases or vapors.  DIVISION 2: Locations in which volatile flammable liquids or flammable gases are handled, processed, or used, but are normally kept in closed containers and can only escape due to accidental rupture.  -or-Locations in which hazardous concentrations of gases or vapors are normally prevented by mechanical ventilation and might become hazardous due to failure of the ventilating equipment.  -or-Locations that are adjacent to Class I, Division 1 locations.	GROUP A: Atmospheres containing acetylene GROUP B: Atmospheres containing: acrolein(inhibited) butadiene ethylene oxide hydrogen gases containing more than 30% hydrogen by volume propylene oxide GROUP C: Atmospheres containing: allyl alcohol carbon monoxide cyclopropane diethyl ether ethylene hydrogen sulfide methyl ether n-propyl ether or gases or vapors of equivalent hazard	GROUP D: Atmospheres containing: acetone ammonia benzene butane butyl alcohol ethane ethyl alcohol gasoline heptanes hexanes methane (natural gas) methyl ethyl ketone (MEK) naphta octanes pentanes propane styrene toluene xylenes or gases or vapors of equivalent hazard			
Class II Locations in which there are explosive mixtures of air and combustible dust.	DIVISION 1: Locations in which explosive or ignitable amounts of combustible dust are or may be in suspension of continuously, intermittently, or periodically under normal operating conditions.  -or- Locations where mechanical failure or abnormal operation of machinery or equipment might cause explosive or ignitable mixtures to be produced.  -or- Locations in which combustible electrically conductive dust is present.  DIVISION 2: Locations where combustible dust deposits exist but are not likely to be thrown into suspension in the air, but where the dust deposits may be heavy enough to interfere with sale heat dissipation from electric equipment.  -or- Locations where combustible dust deposits may be heavy enough to interfere with sale heat dissipation from electric equipment.	t- GROUP E: Atmospheres containing combustible: meta dusts regardless of resistivity or dusts of similarly hazard characteristics having resistivity of less than 100,000 oh centimeter GROUP F: Atmospheres containing combustible: carbo black, charcoal, or coke dusts which have more than 8° black charcoal, or coke dusts which have more than 8° black sensitized by other materials so that they present a explosion hazard, and having a resistivity greater than 1 ohm-centimeter but equal to or less than 100,000,000 ohm-centimeter GROUP G: Atmospheres containing dusts having resist by of 100,000,000 ohm-centimeter				
Class III Locations in which there is the presence of easily-ignited fibers or flyings, but where the fibers or flyings are not likely to be in suspension in the air in quantities great enough to produce ignitable mixtures.	DIVISION 1: Locations in which easily ignitable fibers or materials producing flyings are handled, manufactured, or used. DIVISION 2: Locations in which easily ignitable fibers are stored or handled (except in a manufacturing process).	(NOT GROUPED) Manufacturers include: textile mills, clothing plants, and fiber processing plants. Easily ignitable fibers include: Cotton, rayon, sisal, hempin and jute.				

	NEMA Electrical	Enclosu	re Environmental Protection Ratings
Туре	Protection	Location	Description
1	General purpose	Indoor	Accidental contact
2	Drip-proof	Indoor	Falling non-corrosive liquids and falling dirt (dripping and light splashes)
3	Dust-tight, rain-tight	Outdoor	Windblown dust, water, and sleet; ice-resistant
3R	Dust-tight, rain-tight	Outdoor	Same as above, plus melting of sleet/ice will not damage external enclosure or mechanisms
4	Water-tight/dust-tight	Indoor/ outdoor	Splashing water, outdoor seepage of water, falling or hose-directed water
4X	Water-tight/dust-tight	Indoor/ outdoor	Same as above, plus corrosion resistant
5	Dust-tight	Indoor	Dust and falling dirt
6	Water-tight/dust-tight	Indoor/ outdoor	Temporary entry of water limited submersion, formation of ice on enclosure
6P	Water-tight/dust-tight	Indoor/ outdoor	Same as previous, plus prolonged submersion
7	Explosion proof/Class I Group D Hazardous Locations	Indoor	Hazardous chemicals and gases
9	Explosion proof/Class II Hazardous Locations	Indoor	Hazardous dust
11	Drip-proof/corrosion Resistant	Indoor	Oil immersion, corrosive effects of liquids and gases
12	Drip-tight/dust-tight	Indoor	Fibers, lint, dust, and splashing, and dripping condensation of non-corrosive liquids
13	Oil-tight/dust-tight	Indoor	Dust, spraying of water, oil, and non-corrosive coolant

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### How to interpret IP Ratings

The first number defines the degree of protection against The second number defines the degree of protection against penetration of solid objects into the housing. penetration of <u>liquid</u> into the housing. IP-67 (sample IP rating)

First Number	Level of Protection
0	No protection against contact or entry of solids
1	Protection against accidental contact by hand, but not deliberate contact. Protection against large objects.
2	Protection against contact by fingers. Protection against medium-size foreign objects.
3	Protection against contact by tools, wires, etc. Protection against small foreign objects.
4	Protection against contact by small tools and wires. Protection against small foreign objects.
5	Complete protection against contact with live or moving parts. Protection against harmful deposits of dust.
6	Complete protection from live or moving parts. Protection against penetration of dust.

			[
	Second Number	Level of Protection	s
l	0	No Protection	Ľ
	1	Protection against drops of condensed water. Condensed water falling on housing shall have no effect.	C
	2	Protection against drops of liquid. Drops of falling liquid shall have no effect when housing is tilted to 15° from vertical.	С
l	3	Protection against rain. No harmful effect from rain at angles less than 60° from vertical.	ŀ
l	4	Protection against splashing from any direction.	Α
l	5	Protection against water jets from any direction.	ŀ
l	6	Protection against conditions on ships and decks. Water from heavy seas will not enter.	N
	7	Protection against immersion in water. Water will not enter under stated conditions of pressure and length of time.	
l	8	Protection against indefinite immersion in water under a specified pressure.	S

Additional information on IP ratings can be found in the 1976 IEC Publication: Classification of Degrees of Protection Provided by Enclosures or at www.iec.ch. Example: What is IP-67? Complete protection of live parts, protection against the penetration of dust. Additionally, protection while immersed in water.



PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software C-more

Other HMI

AC Drives

**Notors** 

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

**Appendix** 

Part Index

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## **IEC Utilization Categories**

		IEC Utilization Categories for Low Voltage Switchgear and Contro	l Gear	
Current	Category	Typical Applications	Relevant IEC Product Standard	
	AC-1	Non inductive or slightly inductive loads, resistance furnaces, heaters		
	AC-2	Slip-ring motors: switching off		
	AC-3	Squirrel-cage motors: starting, switching off motors during running most typical industrial application		
	AC-4	Squirrel-cage motors: starting, plugging (1), inching (2)		
	AC-5a	Switching of electric discharge lamps		
	AC-5b	Switching of incandescent lamps	60947-4	
	AC-6a	Switching of transformers	00947-4	
	AC-6b	Switching of capacitor banks		
	AC-7a	Slightly inductive load in household appliances: mixers, blenders		
AC	AC-7b	Motor-loads for household applications: fans, central vacuum		
AU	AC-8a	Hermetic refrigerant compressor motor control with manual resetting overloads		
	AC-8b	Hermetic refrigerant compressor motor control with automatic resetting overloads		
	AC-12	Control of resistive loads and solid state loads with opto-coupler isolation		
	AC-13	Control of solid state loads with transformer isolation	60947-5	
	AC-14	Control of small electromagnetic loads		
	AC-15	Control of AC electromagnetic loads		
	AC-20	Connecting and disconnecting under no-load conditions		
	AC-21	Switching of resistive loads, including moderate loads	60947-3	
	AC-22	Switching of mixed resistive and inductive loads, including moderate overloads		
	AC-23	Switching of motor loads or other highly inductive loads		
AC and DC	А	Protection of circuits, with no rated short-time withstand current	60947-2	
AG allu DG	В	Protection of circuits, with a rated short-time withstand current	00947-2	
	DC-1	Non-Inductive or slightly inductive loads, resistance furnaces, heaters		
	DC-3	Shunt-motors, starting, plugging (1), inching (2), dynamic breaking of motors	-	
	DC-5	Series-motors, starting, plugging (1), inching (2), dynamic breaking of motors	60947-4	
	DC-6	Switching of incandescent lamps		
	DC-12	Control of resistive loads and solid state loads with opto-coupler isolation	-	
DC	DC-13	Control of DC electromagnetics		
	DC-14	Control of DC electromagnetic loads having economy resistors in the circuit	60947-5	
	DC-20	Connecting and disconnecting under no-load conditions	1	
	DC-21	Switching of resistive loads, including moderate overloads		
	DC-22	Switching of mixed resistive and inductive loads, including moderate overloads (i.e., shunt motors)	60947-3	
	DC-23	Switching of highly inductive loads (i.e,. series motors)	1	

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## **UL/CUL/CSA Certification Numbers**

Name	UL/CUL	CSA	ISO-900
Accuamp Current Sensors	F222847	USA	190-900
<u> </u>		-	-
ADC 22mm Pushbuttons and Indicating Lights ECX/GCX models	E189258	66746	-
ADC Contactors	E191059	703171	~
ADC Foot Switches	E191072	-	-
ADC GS & DURA <i>pulse</i> Drives	E198015	-	-
ADC GS & DURA <i>pulse</i> Line Reactors	E61431	-	-
ADC Limit Switches	E191072	-	~
ADC Manual Motor Controllers	E195426	-	~
ADC Photo Switches**	E130644 E224302	-	~
ADC Power Supplies (FA Series)	E200031	-	-
ADC Power Supplies (PS series)	E197886	-	V
ADC Power Supplies (PSM series)	E157382 E198298	229285	~
ADC Power Supplies (PSP series)	E197592 E198298	-	~
ADC Proximity Switches**	E130644	-	V
ADC Relays - QL amd QM Series	E222847	-	-
ADC Relays - 75 and 78 Series	E225080 E191059	-	-
ADC Relays - 755 Series	E191059	-	-
ADC Telephone Modems and Ethernet Switches	E200031	-	-
Atlas Industrial Monitors	E191072 E313546	-	-
C-more Panels	E157382		
C-more Micro Panels	E157382		
Cirronet RF Modems	E235438	-	-
CLICK PLCs	E157382 E316037	-	-
Cutler-Hammer Pushbuttons	E131568	68551	-
Cutler-Hammer Contactors	E1491	353	-
Cutler-Hammer Supplementary Protectors	E162396	043556	-
DINnectors	E179129	-	-
Direct_LOGIC PLC hazardous locations	E200031	-	✓ (Koyo)
<i>Direct</i> LOGIC PLCs & I/O	E157382	-	✓ (Koyo)
<i>Direct</i> Touch Panels	E178572	-	~
Edison Power Distribution Blocks	E256146 E221592	700490 700489	-
Encore Wire Type THHN	E123774 E156879	-	-
Encore Wire Type MTW	E156879	-	-
Encore Wire Type TFFN	E156878	-	-
EZTouch Panels	E209355	-	-
FACTS	E139594	-	-

Name	UL/CUL	CSA	ISO-9000
Ferraz Shawmut Fusible and Non-Fusible Disconnects	E191605 E258428	703166	-
Ferraz Shawmut Disconnects Shafts and Handles (SH400-15 = Socomec 379H1540)	E191605 E196672 E201138	703166	-
Ferraz Shawmut Disconnects Accessories (Connectors and Lugs)	E191605	703166	-
TL100 = Brumall 2/0 TP	E61509	026192_0_000 703166	-
TL200 = Brumall 3/0 TP	E61509	026192_0_000 703167	-
TL400 = Brumall 600T-2 / CMC PV2-600	E61509 E26130	030117_C_000 703166 026192_0_000	-
TL600 = Brumall 600T-2 / CMC PV2-600	E61509 E26130	030117_C_000 703166 026192_0_001	-
TL800 = CMC PV3-600	E26130	030117_C_00 703168	-
AC3= Socomec 39990701	E191127	703166	-
AC4= Socomec 39990702	E191127	703166	-
Fuji Motor Controls	E42419 E44592	-	V
Fuji Manual Motor Starters (stand-alone)	E163944	-	-
Fuji Manual Motor Starter w/ Fuji contactor	E211710	-	-
Fuji Timers and Card Relays	E44592	-	V
Fuse Blocks	E14853	47235	-
Fuses (Class CC)	E162363	-	-
Fuses (Midget Class)	E162443	700489	-
Fuses (Class J)	E162363	700489	-
Fuses (Class RK5)	E162363	700489	-
Fuses (Class RK1)	E162363	700489	-
Fuses (General Purpose-Small Electronic)	E19180	227483 053787 C 000	-

\*For the latest information on agency approvals, please check our Web site.

\*\* except for the following series, which are not UL approved: PY4-x, PY3-x, PD1-x, CR5-x, CR8-x, AE1-xx-5x, AM1-xx-5x, PW4xx-5x, PW4xx-5x, PTW-xx-5x, C5x, CXx, C18x

\*\*\* tested to UL Standards by CSA

#### Continued on next page.



DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

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Motors

Motor Controls

Proximity Sensors

Photo Sensors

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Comm.

TB's & Wiring

Power

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**Appendix** 

Part Index

# **UL/CUL/CSA Certification Numbers**

UL/CUL/CSA Cei	runcanon		
Name	UL/CUL	CSA	ISO-9000
Hammond Control Transformers	E50394	-	-
Hitachi Drives	E178241	-	~
H/W Metal Cabinet & Cutout Boxes	E6924	66078	-
H/W Metal Industrial Control Panels (Non- disconnect)	E64791	66078	-
H/W Metal Industrial Control Panels (Disconnect)	E64791	66078	-
H/W Metal Junction & Pull Boxes	E23553	66078	-
H/W Metal Wireway & Fittings	E32576	66078	-
H/W Non-Metal Enclosures	E64791	222873	-
Host Products	E185989	-	-
I-Flex Flexible Liquid-Tight Tubing (NMPT)	E311916	-	-
IronHorse Motors (T-Frame)	-	200895	-
IronHorse Motors (Rolled Steel)	-	215302	-
Koyo Timers	E186879	-	V
Koyo Encoders	E189395	-	V
Koyo Proximity Switches	E186879	-	V
Marathon Motors	E49747	37479 002025	-
MCCB (molded case circuit breakers)	E7819	43556	-
Non-Fused Disconnects	E226699	-	-
Optimation	E182843	-	-
ProSense Pressure Sensors	E320431	-	-
Solo Process Controllers	E311366	-	-
Stride Ethernet Switches	E200031	-	-
SureServo Servo Systems - Drives	E198015	-	-
SureServo Servo Systems - Motors	E245050	-	-
Wire Duct	E123572	-	-
<b>Zip</b> Link Cables	E179771	80671	-
<b>Zip</b> Link Connectors	E197592	_	-

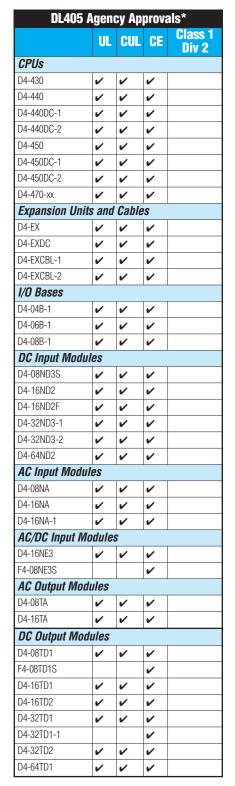
Other Registrations and Certifications				
Name/Description	Designation			
ITAR Part 122 - Registration of Manufacturers and Exporters, registered with Office of Defense Trade Controls	22CFR Section122			
	-			

For the latest information on agency approvals, please check our Web site.

\*\* except for the following series, which are not UL approved: PY4-x, PY3-x, PD1-x, CR5-x, CR8-x, AE1-xx-5x, AM1-xx-5x, PW-xx-5x, PKW-xx-5x, PKW-xx-5x, C5x, CXx, C18x

\*\*\* tested to UL Standards by CSA

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DL405	Agenci	/ Appro	ovals	*
	UL	CUL		A1 4
Polov Output M		00_		Div 2
<b>Relay Output M</b> D4-08TR	I .			
F4-08TRS-1	V	<b>/</b>	V	
	<b>/</b>	<b>/</b>	<b>V</b>	
F4-08TRS-2	V	V	<b>V</b>	
D4-16TR	~	~	<b>'</b>	
Analog Modules	T .			
D4-04AD F4-04AD	<i>'</i>	V	V	
	<b>V</b>	<b>/</b>	<b>V</b>	
F4-04ADS	V	<b>V</b>	<b>V</b>	
F4-08AD	<b>/</b>	<b>/</b>	_	
F4-16AD-1	Pending	Pending	~	
F4-16AD-2	Pend	Pend	~	
D4-02DA	~	~	~	
F4-04DA	~	~	~	
F4-04DAS-1	~	~	~	
F4-04DAS-2	Pending	Pending	~	
F4-08THM	~	~	~	
F4-08THM-n	~	~		
F4-08RTD	<b>'</b>	~	~	
F4-04DA-1	~	~	~	
F4-04DA-2	~	~	~	
F4-08DA-1	<b>'</b>	<b>'</b>	~	
F4-08DA-2	<b>'</b>	~	~	
F4-16DA-1	~	~	~	
F4-16DA-2	<b>V</b>	~	~	
Remote I/O				•
D4-RM	<b>V</b>	~	~	
D4-RS	<b>V</b>	~	~	
D4-RSDC	<b>'</b>	~	~	
D4-SM	<b>v</b>	V	~	
D4-SS-88	V	V	~	
D4-SS-106	<b>v</b>	V	~	
D4-SS-16T	V	<b>/</b>	~	
D4-SS-16N	<b>V</b>	<b>/</b>	~	
F4-SDS	V	~	~	
H4-ERM	V	~	~	
H4-ERM-F	V	V	~	
Communication	s and N	letwork	ing	
D4-DCM	V	~	~	
F4-MAS-MB	V	V	~	
F4-SLV-MB	V	V	~	
F4-SLV-TW	V	~	~	
F4-SDN	~	~	~	
H4-ECOM	~	~	~	
H4-ECOM100				
H4-EBC	~	~	~	
H4-ECOM-F	~	~	~	
H4-EBC-F	~	~	~	



PLC Overvies

DL05/06

DL105 PLC

**DL405 Agency Approvals\*** 

UL CUL

CoProcessors™

Specialty Modules

F4-CP128-1

F4-CP512-1

F4-CP128-R

F4-CP128-T

D4-INT

D4-HSC

F4-16PID

F4-8MPI

D4-16SIM

F4-4LTC

H4-CTRIO

D4-HPP-1

**CPUs** 

D3-330

D3-330P

D3-340

D3-350

F3-0MUX-1

F3-0MUX-2 F3-0MUX-3

F3-PMUX-1

F3-RTU-1

D3-05B-1

D3-05BDC

D3-08B-1

D3-10B-1

D3-10BDC

D3-05B-NR

D3-08B-NR

D3-10B-NR

D3-10BDC-NR

\*For the latest information on agency approvals site. UL (Underwriters Laboratories, Inc.) CUL (Canadian Underwriters Laboratories, Inc.)

D3-05BDC-NR

Specialty CPUs

Bases and Cables

**Programming** 

VV

**DL305 Agency Approvals\*** 

CUL

V

1

V

CE

/

/

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1

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F4-CP512

CE

V

V

Pendina

Class 1

Div 2

Div 2

DL205

DL305 PLC

DL405 PLC

Field I/O

Software C-more

Other HMI

AC Drives

Motors

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors Limit Switches

Encoders

Current Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

Appendix

Part Index

CE (EMC Directive, IV Directive)
Class 1, Div 2 (Tested by Underwriters Laboratories, Inc., file no. E200031)

DL305 Agency Approvals*						
	UL	CUL	CE	Class 1 Div 2		
DC Input Modu	les			DIV Z		
D3-08ND2	V	V	V	V		
D3-16ND2-1	v	v	V	V		
D3-16ND2-2	V	~	v	v		
D3-16ND2F	V	~	v	V		
F3-16ND3F	V	v	V			
AC Input Modu	1					
D3-08NA-1	V	~	~	V		
D3-08NA-2	V	v	v	v		
D3-16NA	V	v	v	V		
AC/DC Input M		1	<u> </u>			
D3-08NE3	~	V	V	V		
D3-16NE3	~	~	v	·		
DC Output Mod			•	ļ -		
D3-04TD1			V			
D3-08TD1	~	~	V	~		
D3-08TD2	V	v	v	v		
D3-16TD1-1	V	~	v	v		
D3-16TD1-2	v	~	v	v		
D3-16TD2	V	~	V	v		
AC Output Mod	lules					
D3-04TAS	V	~	V	V		
D3-08TA-1	v	~	~	~		
D3-08TA-2	v	·	v	V		
F3-08TAS			V			
F3-08TAS-1	V	~		V		
F3-16TA-1			~			
F3-16TA-2	~	~		V		
D3-16TA-2	~	~		v		
Relay Output N	1	1		•		
D3-08TR	V	,s V	1			
F3-08TRS-1	-		<b>V</b>			
F3-08TRS-2	~	V	<b>V</b>			
F3-08TRS-5	~			V		
D3-16TR	v	V	V			
Analog Module	1	V				
D3-04AD	Т.			V		
F3-04ADS	V	V	<b>V</b>	V		
F3-04AD3	V	V	V	./		
F3-08TEMP			_	<i>'</i>		
F3-08THM-n	V	V	<b>V</b>			
F3-16AD	V	V	<b>V</b>	V		
	V	V	V	V		
D3-02DA	V	~	V	V		
F3-04DA-1	V	V	V	V		
F3-04DAS	~	~	~			
F3-08AD-1	~	~		~		

DL305 Agency Approvals*							
	UL	CUL	CE	Class 1 Div 2			
Communications and Networking							
D3-232-DCU	~	~	~				
D3-422-DCU	~	~	~				
D3-DCM	~	~		V			
ASCII BASIC M	odule	s					
F3-AB128	~	~	~	V			
F3-AB128-R	~	~	~				
F3-AB128-T	~	~	~	V			
Specialty Modu	les						
D3-08SIM	~	~	~				
D3-HSC	~	~	~	V			
D3-PWU	~	~	~				
D3-TCSU			~				
Programming	Programming						
D3-HP	~	~	~				
D3-HPP	~	~	~				

DL205 Agency Approvals*					
	UL	CUL	CE	Class 1 Div 2 Zone 2	
CPUs					
D2-230	~	<b>'</b>	~	<b>/</b>	
D2-240	~	~	~	V	
D2-250	~	~	~	V	
D2-250-1	~	~	~	V	
D2-260	~	V	~	V	
H2-WPLC1, 2	V	V	~	V	
I/O Bases					
D2-03BDC-1	~	V	~	V	
D2-03BDC1-1	V	~	~	V	
D2-03B-1	~	~	~	V	
D2-03BDC-2	V	~	~	V	
D2-04B-1	~	1	~	V	
D2-04BDC-1	V	~	~	V	
D2-04BDC1-1	V	~	~	V	
D2-04DBC-2	~	1	~	V	
D2-06B-1	V	1	~	V	
D2-06BDC-1	~	1	~	V	
D2-06BDC1-1	~	~	~	~	
D2-06BDC-2	V	~	~	V	
D2-06BDC2-1	~	~	~	V	
D2-09B-1	~	~	~	v	
D2-09BDC-1	~	~	~	V	
D2-09BDC1-1	~	~	~	V	
D2-09BDC-2	~	~	~	V	
D2-09BDC2-1	V	~	~	V	

	UL	CUL	CE	Class 1 Div 2 Zone 2
DC Input Mo	odules			
D2-08ND3	~	~	~	V
D2-16ND3-2	~	~	~	V
D2-32ND3-2	~	~	~	V
D2-32ND3	~	~	~	V
DC Output I	<i>Nodule</i>	s		
D2-04TD1	~	~	~	V
D2-08TD1	~	~	~	V
D2-08TD2	~	~	~	V
D2-16TD1-1	~	~	~	V
D2-16TD2-2	~	~	~	V
F2-16TD1P	~	~		V
F2-16TD2P	V	~		V
D2-32TD1	~	~	~	V
D2-32TD2	V	~	V	V
AC Input Mo	dules			
D2-08NA-1	V	~	~	V
D2-16NA	V	~	V	V
D2-08NA-2	V	~	V	V
AC Output N	<i>lodule</i>	S		
D2-08TA	V	~	V	V
D2-12TA	~	~	~	V
F2-08TA	V	~	Pending	V
Relay Outpu	ıt Mod	ules		
D2-04TRS	V	~	~	V
D2-08TR	V	~	V	V
D2-08TRS	V	~	~	V
D2-12TR	~	~	~	~
F2-08TRS	V	~	~	
F2-08TR	~	~	~	
*For the latest informatic. UL (Underwriters La CUL (Canadian Und CE (EMC Directive, Class 1, Div 2 (Teste	boratories, erwriters La LV Directive	Inc.) aboratories	s, Inc.)	

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DL205 Agency Approvals*						
	UL	CUL	CE	Class 1 Div 2 Zone 2		
Analog Mode	ules					
F2-04AD-1	~	~	V	V		
F2-04AD-2	~	V	V	V		
F2-02DA-1	~	~	~	~		
F2-02DA-2	~	~	V	~		
F2-02DA-1L	~	~	<b>/</b>	~		
F2-02DL-2L	~	~	~	~		
F2-02DAS-1	~	~	V	~		
F2-02DAS-2	~	~	V	~		
F2-4AD2DA	~	~	<b>~</b>	~		
F2-8AD4DA-1	Pending	Pending	Pending	Pending		
F2-8AD4DA-2	Pending	Pending	Pending	Pending		
F2-08DA-1	~	V	<b>/</b>	V		
F2-08AD-1	~	V	V	V		
F2-08AD-2	~	V	V	~		
F2-08DA-2	~	V	V	V		
F2-04AD-1L	~	V	V	V		
F2-04AD-2L	~	~	V	V		
F2-04RTD	~	V	V	V		
F2-04THM	V	~	V	V		
Remote I/O						
D2-RMSM	~	~	V	V		
D2-RSSS	~	V	V	~		
F2-SDS-1	~	~	V	~		
F2-DEVNETS	~	V	V	~		
D2-CM	V	V	V	V		
D2-EM	~	~	V	V		
H2-ERM	V	~	V	V		
H2-ERM-F	~	~		V		
Combination	Module	es				
D2-08CDR	V	~	V	V		
Communicat	ions and	d Netw	orking			
D2-DCM	V	V	~	V		
H2-ECOM	V	<b>'</b>	~	<b>V</b>		
H2-ECOM100	V	~	~	~		
H2-EBC	V	V	~	V		
H2-EBC100	~	~	~	V		
H2-ECOM-F	~	~		V		
H2-EBC-F	~	~		V		
H2-SERIO	~	~	~	V		
F2-DEVNETS-1	~	~	~	V		
H2-PBC	~	V	V	V		

DL205 Agency Approval*						
	UL	CUL	CE	Class 1 Div 2 Zone 2		
Specialty Modules						
D2-CTRINT	~	~	~	V		
F2-CP128	~	~	~	V		
F2-08SIM	~	~	~			
H2-CTRIO	~	~	~	V		
Programming						
D2-HPP	~	~	<b>/</b>	V		

Control Accessories Agency Approvals*					
	UL	CUL	CE	Class 1 Div 2	
FA-UNICON	~	~	~		
F2-UNICON	~	~	Pending		
FA-ISONET	~	~			
FA-REC3	~	~			
HA-TADP	~	~			
HA-FTADP	~	~			
FA-24PS-xx	~	~		~	
FA-4PWM					
FA-ISOCON	~	~	Pending	~	

DL105 Agency Approvals*					
		CUL		Class 1 Div 2	
Micro PLCs					
F1-130AA	~	~			
F1-130AD	~	~			
F1-130AR	~	~			
F1-130DA	~	~			
F1-130DD	~	~			
F1-130DR	~	~			
F1-130DD-D	~	~			
F1-130DR-D	~	~			
F1-DVNET-AR	~	~			
F1-DVNET-DD	~	~			
F1-DVNET-DR	~	V			

DLO	DL06 Agency Approvals*						
	UL	CUL	CE	Class 1 Div 2 Zone 2			
PLCs							
D0-06AA	~	~	~	V			
D0-06AR	~	<b>~</b>	<b>~</b>	V			
D0-06DA	V	<b>/</b>	<b>/</b>	~			
D0-06DD1	~	<b>'</b>	V	V			
D0-06DD2	V	<b>~</b>	<b>~</b>	V			
D0-06DR	V	<b>/</b>	V	~			
D0-06DD1-D	~	<b>'</b>	V	V			
D0-06DD2-D	V	<b>~</b>	<b>~</b>	V			
D0-06DR-D	V	~	~	V			
DL06-Only I	DL06-Only Module						
D0-06LCD			<b>~</b>				

DL05 Agency Approvals*						
	UL	CUL	CE	Class 1 Div 2		
PLCs						
D0-05AA	~	~	~			
D0-05AD	~	~	~			
D0-05AR	~	~	~			
D0-05DA	~	~	<b>~</b>			
D0-05DD	~	V	<b>/</b>			
D0-05DR	~	~	~			
D0-05DD-D	~	~	<b>~</b>			
D0-05DR-D	~	~	~			
05-Only Option Module						
D0-01MC	~	~	V			

DL05/DL06 Agency Approvals*						
	UL	CUL	CE	Class 1 Div 2		
DL05/DL06 Discrete Option Modules Note 1						
D0-07CDR	~	~	~	~		
D0-08CDD1	~	~	~	~		
D0-08TR	~	~	~	~		
D0-10ND3	~	~	~	~		
D0-10ND3F	Pending	Pending	Pending	Pending		
D0-10TD1	~	~	~	~		
D0-10TD2	~	~	~	~		
D0-16ND3	V	~	V	~		
D0-16TD1	~	~	~	~		
D0-16TD2	~	~	~	~		
F0-04TRS	Pending	Pending	Pending	Pending		
F0-08NA-1	Pending	Pending	~	Pending		

\*For the latest information on agency approvals, check our Web site.
UL (Underwriters Laboratories, Inc.)
CUL (Canadian Underwriters Laboratories, Inc.)
CE (EMC Directive, LV Directive)
Class 1, Div 2 (Tested by Underwriters Laboratories, Inc., file no.
E200031)

Note 1: The DL05/06 discrete option modules are generic CE compliant only, not 61131-2 as the modules do not have LED indicators.

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Motor Controls

Proximity Sensors

Photo Sensors

Limit Switches

Encoders

Current Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

**Appendix** 

Part Index

DL05/I	DLO6 A	gency	Approv	als*
	UL	CUL	CE	Class 1 Div 2 Zone 2
DL05/DL06	Analog	Option	Module	s
F0-04AD-1	~	<b>'</b>	<b>'</b>	~
F0-2AD2DA-2	~	<b>/</b>	~	~
F0-4AD2DA-1	~	<b>~</b>	~	~
F0-4AD2DA-2	~	~	~	~
F0-08ADH-1	Pending	Pending	Pending	Pending
F0-08ADH-2	Pending	Pending	Pending	Pending
F0-08DAH-1	Pending	Pending	Pending	Pending
F0-08DAH-2	Pending	Pending	Pending	Pending
F0-04DAH-1	Pending	Pending	Pending	Pending
F0-04DAH-2	Pending	Pending	Pending	Pending
F0-04AD-2	V	~	V	~
F0-04THM	V	~	V	~
F0-04RTD	V	~	~	V
DL05/DL06	Commu	ınicatio	ns Mod	ules
D0-DEVNETS	Pending	Pending	Pending	Pending
H0-ECOM	~	~	~	~
D0-DCM				
H0-ECOM100	~	~	~	
H0-PSCM	V	V	~	~
DL05/DL06	Special	ty Mod	ules	'
H0-CTRIO	V	~	V	~
F0-CP128	Pending	Pending		Pending
F0-08SIM	Pending	Pending		Pending
	-	-	-	-

CLICK PLC Agency Approvals*					
	UL	CUL	CE	Class 1 Div 2 Zone 2	
CPUs					
C0-00DD1-D	V	V	V		
C0-00DD2-D	~	V	~		
C0-00DR-D	~	V	V		
C0-00AR-D	~	V	V		
Power Sup	olies	<u>'</u>	'	'	
C0-00AC	V	V	V		
C0-01AC	~	V	V		
Input Modu	les			<u>'</u>	
C0-08ND3	V	V	~		
C0-08ND3-1	~	V	V		
C0-16ND3	~	V	~		
C0-08NA	V	V	~		
Output Mod	lules				
C0-08TD1	~	V	~		
C0-08TD2	~	~	V		
C0-16TD1	~	V	~		
C0-16TD2	~	V	~		
C0-08TA	~	V	V		
C0-04TRS	~	~	~		
C0-08TR	~	V	V		

	UL	CUL	CE	Class 1 Div 2
DirectLogic				
DV1000	1	V	~	
DirectTouch				
DP-M320, 321	V	~	~	
DP-C320, 321	~	~	~	
Optimate Panels	~	~	~	Special orde
EZTouch/EZText Panels	~	~	~	
C-more Panels				
EA-S6M-R	~	~	~	
EA-S6M	~	~	~	
EA-S6C-R	~	~	~	
EA-S6C	~	~	~	
EA-T6C	~	~	~	
EA-T8C	~	~	~	
EA-T10C	~	~	~	
EA-T12C	~	~	~	
EA-T15C	~	~	~	
C-more Micro Pa	nels	•	•	
EA1-S3ML-N	~	~	~	
EA1-S3ML	~	~	~	
EA-MG-BZ1	~	~	~	
EA-MG-BZ2	~	~	~	
EA1-S6ML	~	~	~	
EA1-S6MLW	~	~	~	
EA-MG6-BZ2	~	~	~	
EA-MG6-BZ2P	~	~	~	
EA-MG-P1	~	~	~	
EA-MG-SP1	~	~	~	
EA-MG-PGM-CBL	~	~		

\*For the latest information on agency approvals, check our Web site.
UL (Underwriters Laboratories, Inc.)
CUL (Canadian Underwriters Laboratories, Inc.)
CE (EMC Directive, LY Directive)
Class 1, Div 2 (Tested by Underwriters Laboratories, Inc., file no.
E200031)

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	UL	CUL	CE	Class Div 2
				Zone 2
Power Suppl	ies an	id Bas	es	
T1K-01AC	~	~	~	~
T1K-01DC	~	~	~	~
T1K-08B	~	1	~	~
T1K-16B	~	<b>'</b>	<b>'</b>	~
T1K-08B-1	<b>'</b>	<b>'</b>	<b>'</b>	~
T1K-16B-1	~	~	V	~
Discrete Inpu	ut Moc	dules		
T1K-08ND3	~	~	<b>~</b>	~
T1K-16ND3	~	~	~	~
T1K-08NA-1	~	~	V	V
T1K-16NA-1	~	1	~	~
Discrete Out	put M	odules	3	
T1H-08TDS	V	V		
T1K-08TD1	~	~	~	~
T1K-16TD1	~	~	~	v
T1K-16TD2	~	~	~	v
T1K-16TD2-1	~	~	~	v
T1K-08TA	~	~	V	~
T1K-08TAS	~	~	V	~
T1K-16TA	~	~	~	~
T1K-16TR	~	~	V	~
T1K-08TR	~	~	~	~
T1K-08TRS	~	~	~	~
T1K-08TD2-1	<b>'</b>	<b>'</b>	<b>'</b>	~
Analog Modu	ules			
T1F-08AD-1	~	V	V	~
T1F-08AD-2	~	~	<b>v</b>	~
T1F-08DA-1	~	~	<b>v</b>	~
T1F-08DA-2	~	~	V	~
T1F-16AD-1	~	~	~	~
T1F-16AD-2	~	~	~	<b>'</b>
T1F-16DA-1	~	~	~	<b>'</b>
T1F-16DA-2	~	~	~	~
T1F-14THM	~	~	~	~
T1F-16RTD	~	V	V	<b>'</b>
Combination	Analo	og Mo	dules	
T1F-08AD4DA-1	~	~	~	<b>'</b>
T1F-08AD4DA-2	~	~	~	<b>'</b>
Network Inte	rface	Modu	les	
T1H-EBC	~	~	~	~
T1H-EBC100	~	~	Pending	v
T1H-PBC	~	~	~	~
T1K-DEVNETS	~	V	~	~
T1K-MODBUS	~	~	~	V
T1K-RSSS	~	~	~	V
Specialty Mo		1.		I

ProSense Pressure Sensors*					
	UL	cUL	CE	Class 1 Div 2	
All models	<b>'</b>	<b>'</b>	<b>'</b>		

Signal Conditioner Agency Approvals*					
	UL	cUL	CE	Class 1 Div 2	
FC-33	~	V		V	
FC-11	~	~		V	
FC-T1	~	~		V	
FC-R1	~	~		V	

SOLO Temperature Controllers*					
	UL	cUL	CE	Class 1 Div 2	
All models	~	~	~		

Stride Ethernet Switches*					
	UL	cUL	CE	Class 1 Div 2	
All models	<b>'</b>	~	<b>/</b>		

Motors and Drives Agency Approvals				
	UL	CUL	CE	Class 1 Div 2 Zone 2
SureServo				
Drives (SVA-xxxx)	~	~	~	
Motors (SVL-xxxx and SVM-xxxx)	~	~	~	
GS and DuraPulse	~	~	V*	
Steppers				
Stepper Drive			~	
Stepper Power Supply	~	~	~	
Stepper Motor			~	
Hitachi				
L100 series	~		~	
SJ100 series	~		~	
SJ300 series	~	~	~	
Marathon Motors	~			
* GS2-5xxx series 575V AC drive	es are no	t CE com	oliant.	

### Agency Approvals\*

	UL	CUL/C SA	CE	Class 1 Div 2
All photo switches**	~	<b>v</b>	/	
All proximity switches**	~	~	~	
All limit switches	~	~	~	
All contactors	~	~	~	
All power supplies	~	<b>'</b>	~	<b>✓</b> ***
All modems/ethernet switches	~	~	~	~
All drives	~	~	~	
All timers/counters	~	V	~	

\*\* Except for the following series, which are not UL approved at this time: PY4\*, PY3\*, PD1\*, CR5\*, CR8\*, PMW-\*\*-5\*, PKW-\*\*-5\*, PTW-\*\*-5\*, CS\*, CX\*, C18\*

\*\*\* Only these power supplies are UL Class 1, Div 2 approved: PS24-075D, PS24-150D, PS24-300D

#### Cu

	UL	CSA	CE	Class 1 Div 2
All contactors	~	~	~	
All pushbuttons	~	~	~	

\*For the latest information on agency approvals, check our Web site. UL (Underwriters Laboratories, Inc.) CUL (Canadian Underwriters Laboratories, Inc.) CE (EMC Directive, LV Directive) Class 1, Div 2 (Tested by Underwriters Laboratories, Inc., file no. E200031)

**AutomationDirect** 

ngolicy npplovals						
	UL	CUL/C SA	CE	Class 1 Div 2		
All photo switches**	~	<b>v</b>	~			
All proximity switches**	~	~	~			
All limit switches	~	~	~			
All contactors	~	<b>'</b>	~			
All power supplies	~	<b>'</b>	~	<b>✓</b> ***		
All modems/ethernet switches	~	~	~	~		
All drives	~	V	~			
All timers/counters	~	V	~			
For the latest information on agency approvals, check our Web site.						

tler-Hamn	ner Agenc	cy Approvals*
		Old

	UL	CSA	CE	Class 1 Div 2		
All contactors	~	~	~			
All pushbuttons	~	~	~			

PLC Overview

DL05/06 PLC

DL105 PLC

DL205 PLC

DL305 PLC

DL405 PLC

Field I/O

Software

C-more HMIs

Other HMI

AC Drives

Motors

Steppers/ Servos

Motor Controls

Proximity Sensors

Photo Sensors

Limit

Switches Encoders

Current Sensors

Pushbuttons/ Lights

Process

Relays/ Timers

Comm.

TB's & Wiring

Power

Circuit Protection

Enclosures

**Appendix** 

Part Index